

Remarks/Arguments

Applicants submit this Response After Final in reply to the Final Office Action mailed June 03, 2004.

No amendment is made to claims 1-49 that remain pending in this application.

In the Final Office Action, the Examiner rejected claims 34 and 36 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,261,082 to Han.

The Examiner also rejected claims 35 and 37-40 under 35 U.S.C. § 103(a), as being unpatentable over Han ('082).

Applicants respectfully traverse the Examiner's rejections for at least the reasons discussed below.

Allowable Subject Matter

Applicants gratefully acknowledge the Examiner's statement that claims 1-33, and 42-49 are allowable.

Drawings

In the Amendment filed with the application on February 24, 2004, Applicants requested drawing replacements in the above identified application by filing 14 sheets of formal drawings. Office Action Summary (PTOL-326), however, does not appear to acknowledge this request.

Applicants respectfully request that the Examiner expressly acknowledge Applicants' requested drawing amendments in the next paper mailed from the USPTO.

Claim Rejections Under 35 U.S.C. § 102(e) – Independent Claim 34

Claim 34 was rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,261,082 to Han ("Han"). Applicants respectfully submit that the rejection under this section should be withdrawn for at least three reasons.

First, Applicants respectfully submit Han does not teach or suggest all the claim recitations of claim 34.

The examiner asserts that Han "teaches a pressing apparatus comprising a bushing (42)." Final Office Action, page 2, ¶ 4. (Emphasis added). Han, however, actually discloses "a manual die set, comprising a die defining an opening therethrough for receiving the ram." Han, col. 2, 9-13. (Emphasis added). Therefore, while the examiner assumes that Han discloses a bushing, Han in reality discloses a die 42.

A bushing comprises "a fixed or removable cylindrical metal lining used to constrain, guide, or reduce friction." American Heritage College Dictionary 190 (3d ed. 1997). A die, on the other hand, comprises "a device used for cutting out, forming, or stamping material. Id at 386. (Emphasis Added). In the present invention, the bushing 300 is designed to guide the knockout 200 and reduce friction between the bushing 300 and the knockout 200, whereas the die 42 in Han is used primarily to form pellets.

Applicants respectfully submit that the die 42 in Han does in fact act as a die and not as a bushing. The Han patent not only describes its long cylindrical member as a die 42, but Han also states its function as a forming press by stating, "[t]he present invention is used to press highly explosive molding powder into cylindrical pellets." Han, col 3, 7-10. While Han also teaches opening the end of the die and using the ram

to knockout the formed pellets, die 42 remains a die, not a bushing. Given the differences in function and structure between a die and a bushing, one skilled in the art would not consider a die when seeking to design a bushing. The former must withstand forces of an entirely different character than a bushing and may be formed of material that does not reduce friction.

Thus, for at least this reason, Han does not teach or suggest all the claim recitations of claim 34.

Second, Applicants respectfully submit that Han does not teach or suggest a tapered portion of the shaft that engages the tapered portion of the die assembly.

The Examiner states:

Han teaches a pressing apparatus comprising a knockout punch assembly (46) and a die assembly (52, 58); wherein the apparatus further discloses a bushing (42) including a lumen (68) for slidably supporting the knockout (60) and a round tapered recess (70) for receiving the complementary tapered end of a knockout shaft (62).

Final Office Action, page 2, ¶ 4.

Even assuming, as the Examiner argues, that small diameter portion 64 of the ram 46 in Han can be construed as the “knockout shaft,” Applicants respectfully submit that Han fails to disclose, “a tapered portion fixed to a second end of the shaft and disposed in the extended position to symmetrically engage a tapered recess in the one of the punch and die assemblies that slidably supports the shaft,” as recited in independent claim 1, for example. (Emphases added). Applicants respectfully submit that the tapered portions 70 and 62 of Han do not “engage,” “mate,” or otherwise “receive” with one another, as recited in claims 1-49.

Instead, “the tapered portion 62 of the ram and the tapered portion 70 of the opening in the die define a gap 74 therebetween.” See Han, col. 3, 62-64 and Fig 5. of Han. Han further discloses:

If there were no gap 74, it is possible that an explosion would occur when the tapered portion 62 of the ram compresses power residue against the wall of the die 42. The vertical dimension of the gap 74 is in the range of about 0.050 inches to about 0.1 inches.

Id. col. 3, line 67, to col. 4, line 4, and Fig. 5.

Han also states that “[w]hen the manual die set is in the knockout configuration and the ram is fully inserted in the opening in the die, the tapered portion of the die define a gap therebetween.” Id. col. 2, line 30-34. Thus, Han fails to disclose a tapered portion of the shaft that engages the tapered portion of the bushing, as recited in claim 34 and depicted in Fig. 2c, for example.

Third, Applicants respectfully submit that because Han fails to disclose a tapered portion of the shaft that engages the tapered portion of the die assembly, Han does not teach or suggest that the tapered portions 62 and 70 of Han assist in the alignment of the ram 46 with the die 42.

Applicants respectfully submit that there is no disclosure in Han of the tapered portions 62 and 70 aligning the ram 46 with the die 42. Instead, Han discloses, “the large diameter portion [68] of the opening [44] having a diameter less than or equal to about 0.002 inches larger than a diameter of the large diameter portion [60] of the ram [46]. . . . wherein vertical alignment of the ram [46] is maintained by insertion of the large diameter portion [60] of the ram [46] in the large diameter portion [68] of the opening [44] in the die.” (Emphasis added); Han, col. 2, lines 14-23; see also Figs. 4

and 5 of Han, which illustrate that large diameter portions 60 and 68 maintain vertical alignment of the ram 46 with the die 42, not the tapered portions 62 and 70, which are instead separated by gap 74. Accordingly, Han does not teach or suggest that the tapered portions 62 and 70 of Han assist in the alignment of the ram 46 with the die 42.

Thus, for at least these reasons, Applicants submit that claim 34 is patentable under 35 U.S.C. § 102(e) over Han and the other art of record.

Claim Rejections Under 35 U.S.C. § 102(e) – Dependent Claim 36

Applicants submit that dependent claim 36 is patentable under 35 U.S.C. § 102(e) over the cited references, including Han and the other art of record, at least due to the direct dependency from independent claim 34.

Claim Rejections Under 35 U.S.C. § 103(a)

Applicants submit that dependent claims 35 and 37-40 are patentable under 35 U.S.C. § 103(a) over the cited references, including Han and the other art of record, at least due to the direct or indirect dependency of claims 35 and 37-40 from independent claim 34.

Conclusion

Applicants submit that the present application is in condition for allowance. If a conversation might advance prosecution, the Examiner is invited to call the undersigned (202-408-4100).

The Office Action contains numerous statements reflecting characterizations about the invention(s), the claims, and the related art with which Applicants do not necessarily agree. Regardless of whether any such statement or characterization is


discussed above, Applicants decline to subscribe to any statement or characterization in the Office Action.

If any additional fees are due in connection with the filing of this response, please charge the fee to our Deposit Account No. 06-0916. If an extension of time under 37 C.F.R. § 1.136 is required and is not accounted for above, such extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted,

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Dated: August 17, 2004

By: 
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